



JPW

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor: Watts et al.

App. No.: 10/757,778 GPAU: 1732

Filing Date: January 15, 2004 Examiner: Michael Colaianni

Dkt. No.: P80-22-03 Conf. No.: 6151

For: METHOD TO IMPROVE THE FLOW RATE OF IMPRINTING MATERIAL

INFORMATION DISCLOSURE STATEMENT

Mail Stop AMENDMENT  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

The following information is submitted in compliance with Applicants' duty of disclosure and pursuant to 37 C.F.R. § 1.56, § 1.97 and § 1.98. The undersigned brings the patents, publications, applications or other information identified in the attached:

- ☒ Form(s) PTO/SB/08A and/or PTO/SB/08B or PTO/1449  
☐ Other:

to the Examiner's attention in the above-identified application. It is respectfully requested that the cited information be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

This Information Disclosure Statement is being filed:

before the mailing date of a first Office action on the merits or before the mailing date of a first Office action after the filing of a request for continued examination under § 1.114. Therefore, no fee is believed required.

Applicants do not believe that any additional fees are due, but if the Commissioner believes additional fees are due, the

Commissioner is hereby authorized to charge any fees which may be required, or credit any overpayment, to Deposit Account Number 502650.

CERTIFICATE OF TRANSMISSION

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as either First Class Mail or Express Mail, in an envelope addressed to the Commissioner for Patents.

Signed: Katrina Prati

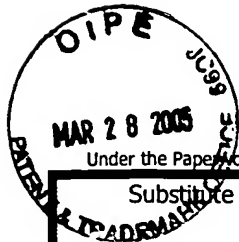
Typed Name: Katrina Prati

Date: 3-24-05

Respectfully Submitted,



Kenneth C. Brooks,  
Reg. No. 38,393  
Legal Department  
Molecular Imprints, Inc.  
P.O. Box 81536  
Austin, TX 78758-1536  
(512) 339-7760  
(512) 491-8918 (fax)



PTO/SB/08A (08-03)

Approved for use through 7/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT***(use as many sheets as necessary)*

Sheet

1

of

6

**Complete if Known**

<b>APPLICATION NUMBER</b>	10/757,778
<b>FILING DATE</b>	01/15/2004
<b>FIRST NAMED INVENTOR</b>	Watts et al.
<b>Group Art Unit</b>	1732
<b>Examiner Name</b>	Colaianne, Michael
<b>Attorney Docket Number</b>	P80-22-03

**U.S. PATENT DOCUMENTS**

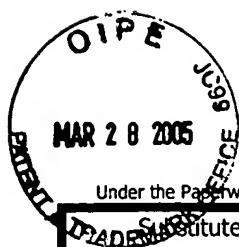
Examiner Initials*	Cite No. <sup>1</sup>	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code <sup>2</sup> (if known)			
	D1	5,425,848		Haisma et al.	6/20/1995	
	D2	6,309,580	B1	Chou	10/30/2001	
	D3	6,696,220	B2	Bailey et al.	2/24/2004	
	D4	2004/0007799	A1	Choi et al.	1/15/2004	
	D5	2004/0021254	A1	Sreenivasan et al.	2/5/2004	
	D6	2004/0021866	A1	Watts et al.	2/5/2004	
	D7	2004/0022888	A1	Sreenivasan et al.	2/5/2004	
	D8	2002/0177319	A1	Chou	11/28/2002	
	D9	6,713,238	B1	Chou et al.	3/30/2004	
	D10	2004/0008334	A1	Sreenivasan et al.	1/15/2004	
	D11	2004/0009673	A1	Sreenivasan et al.	1/15/2004	
	D12	2004/0124566	A1	Sreenivasan et al.	7/1/2004	
	D13	6,646,662	B1	Nebashi et al.	11/11/2003	
	D14	6,776,094	B1	Whitesides et al.	8/17/2004	
	D15	6,518,189	B1	Chou	2/11/2003	
	D16	2002/0132482	A1	Chou	9/19/2002	
	D17	2002/0167117	A1	Chou	11/14/2002	
	D18	6,482,742	B1	Chou	11/19/2002	

Examiner  
SignatureDate  
Considered

\*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending on the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

*If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.*



PTO/SB/08A (08-03)

Approved for use through 7/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number

<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(use as many sheets as necessary)</i>				<b>Complete if Known</b>	
Sheet      2      of      6				<b>APPLICATION NUMBER</b> 10/757,778	
				<b>FILING DATE</b> 01/15/2004	
				<b>FIRST NAMED INVENTOR</b> Watts et al.	
				<b>Group Art Unit</b> 1732	
				<b>Examiner Name</b> Colaianni, Michael	
				<b>Attorney Docket Number</b> P80-22-03	

U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code <sup>2</sup> (if known)			

	D19	2003/0080471	A1	Chou	5/1/2003	
	D20	2004/0036201	A1	Chou et al.	2/26/2004	
	D21	2004/0192041	A1	Jeong et al.	9/30/2004	
	D22	6,828,244	B2	Chou	12/7/2004	
	D23	6,809,356	B2	Chou	10/26/2004	
	D24	2004/0197843	A1	Chou et al.	10/7/2004	
	D25	2004/0156108	A1	Chou et al.	8/12/2004	
	D26	2004/0137734	A1	Chou et al.	7/15/2004	
	D27	2004/0131718	A1	Chou et al.	7/8/2004	
	D28	2004/0118809	A1	Chou et al.	6/24/2004	
	D29	2004/0046288	A1	Chou	3/11/2004	
	D30	2003/0080472	A1	Chou	5/1/2003	
	D31	2003/0034329	A1	Chou	2/20/2003	
	D32	2002/0042027	A1	Chou et al.	4/11/2002	
	D33	6,580,172	B2	Mancini et al.	6/17/2003	
	D34	4,512,848		Deckman et al.	4/23/1985	
	D35	6,517,995	B1	Jacobenson et al.	2/11/2003	
	D36	2004/0110856	A1	Young et al.	6/10/2004	

<b>Examiner Signature</b>		<b>Date Considered</b>	
---------------------------	--	------------------------	--

\*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending on the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

*If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.*

*If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.*

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number

Substitute for form 1449A/PTO				<b>Complete if Known</b>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(use as many sheets as necessary)</i>				APPLICATION NUMBER 10/757,778	
				FILING DATE 01/15/2004	
				FIRST NAMED INVENTOR Watts et al.	
				Group Art Unit 1732	
				Examiner Name Colaianne, Michael	
Sheet	4	of	6	Attorney Docket Number P80-22-03	

FOREIGN PATENT DOCUMENTS								
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Office 3	Number <sup>4</sup>	Kind Code <sup>5</sup> (if known)				

	D41	WO	00/21689		Chou et al.	4/20/2000		
	D42	JP	02-92603		Kurikawa et al.	4/3/1990		
	D43	JP	02-24848		Kamio	1/26/1990		
	D44	WO	01/47003		Steiner et al.	6/28/2001		
	D45	WO	02/07199		Chou	1/24/2002		
	D46	WO	2004/114016		Chou et al.	12/29/2004		
	D47	WO	99/05724		Chou et al.	2/4/1999		
	D48	WO	03/010289		Chou et al.	2/6/2003		
	D49	WO	03/079416		Chou	9/25/2003		
	D50	WO	03/099536		Chou et al.	12/4/2003		

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

\*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending on the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number

Substitute for form 1449A/PTO				<b>Complete if Known</b>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(use as many sheets as necessary)</i>				<b>APPLICATION NUMBER</b>	10/757,778
				<b>FILING DATE</b>	01/15/2004
				<b>FIRST NAMED INVENTOR</b>	Watts et al.
				Group Art Unit	1732
				<b>Examiner Name</b>	Colaianne, Michael
Sheet      5      of      6				<b>Attorney Docket Number</b>	P80-22-03

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>

	D51	Choi et al., Design of Orientation Stages for Step and Flash Imprint Lithography, Precision Engineering, pp. 192 - 199, 1/1/2001	
	D52	Colburn et al., Step and Flash Imprint Lithography for sub-100 nm Patterning, Proceedings of SPIE Vol. 3997, pp. 453 - 457, 1/1/2000	
	D53	Johnson et al., Advances in Step and Flash Imprint Lithography, SPIE Microlithography Conference, 2/23/2003	
	D54	Heidari, Nanoimprint Lithography at the 6 in. Wafer Scale, J. Vac. Sci. Technol. B 18(6), pp. 3557 - 3560, 11/1/2000	
	D55	Translation of Japanese Patent 02-92603	
	D56	Translation of Japanese Patent 02-24848	
	D57	Chou et al., Ultrafast and Direct Imprint of Nanostructures in Silicon, Nature, Col. 417, (June 2002), pp. 835-837, 6/1/2002	
	D58	Chou et al., Nanoimprint Lithography, Journal of Vacuum Science Technology B 14(16), pp. 4129-4133, 11/1/1996	
	D59	Colburn et al., Development and Advantages of Step-and-Flash Lithography, Solid State Technology, 7/1/2001	

<b>Examiner Signature</b>		<b>Date Considered</b>	
-------------------------------	--	----------------------------	--

\*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending on the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450.. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number

Substitute for form 1449A/PTO				<b>Complete if Known</b>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(use as many sheets as necessary)</i>				<b>APPLICATION NUMBER</b>	10/757,778
				<b>FILING DATE</b>	01/15/2004
				<b>FIRST NAMED INVENTOR</b>	Watts et al.
				Group Art Unit	1732
				<b>Examiner Name</b>	Colaianne, Michael
Sheet      6      of      6				<b>Attorney Docket Number</b>	P80-22-03

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>

	D60	Colburn et al., Characterization and Modeling of Volumetric and Mechanical Properties for Step and Flash Imprint Lithography Photopolymers, Journal of Vacuum Science Technology. Vol b. 19(6), 11/1/2001	
	D61	Bailey et al., Step and Flash Imprint Lithography: Defect Analysis, Journal of Vacuum Science, B 19(6), pp. 2806-2810, 11/1/2001	
	D62	Bailey et al., Step and Flash Imprint Lithography: Template Surface Treatment and Defect Analysis, Journal of Vacuum Science, B 18(6), pp. 3572-3577, 11/1/2000	
	D63	Schneider et al., Stripes of Partially Fluorinated Alkyl Chains: Dipolar Langmuir Monolayers	

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

\*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending on the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450.. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

*If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.*